

## PATENT COOPERATION TREATY

PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 15 MAR 2006

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|   |  |  |                      |
|---|--|--|----------------------|
| Applicant's or agent's file reference<br>XXX  | <b>FOR FURTHER ACTION</b>                                |  | See Form PCT/PEA/416 |
| International application No.<br>PCT/NO2004/000374  | International filing date (day/month/year)<br>06.12.2004 | Priority date (day/month/year)<br>05.12.2003                             |                      |
| International Patent Classification (IPC) or national classification and IPC<br>A23K1/16, A23K1/18, A23L1/302, A23L1/304  |  |  |                      |
| Applicant<br>PIGEON VITALITY AS   |  |  |                      |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 2 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> |  |  |                      |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>   |  |  |                      |
| Date of submission of the demand<br><br>30.09.2005  |  | Date of completion of this report<br><br>14.03.2006                      |                      |
| Name and mailing address of the international preliminary examining authority:<br> European Patent Office - P.B. 5818 Patentlaan 2<br>NL-2280 HV Rijswijk - Pays Bas<br>Tel. +31 70 340 - 2040 Tx: 31 651 epo nl<br>Fax: +31 70 340 - 3016   |  | Authorized Officer<br><br>Rooney, K<br><br>Telephone No. +31 70 340-3931 |                      |



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**INTERNATIONAL PRELIMINARY REPORT  
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International application No.  
PCT/NO2004/000374

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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1-14 as originally filed

**Claims, Numbers**

1-8 received on 15.07.2005 with letter of 15.07.2005

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

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1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 6

because:

☒ the said international application, or the said claims Nos. 6 relate to the following subject matter which does not require an international preliminary examination (specify):

**see separate sheet**

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos.

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

|                               |             |         |
|-------------------------------|-------------|---------|
| Novelty (N)                   | Yes: Claims | 1-8     |
|                               | No: Claims  |         |
| Inventive step (IS)           | Yes: Claims | 1-8     |
|                               | No: Claims  |         |
| Industrial applicability (IA) | Yes: Claims | 1-5,7,8 |
|                               | No: Claims  |         |

2. Citations and explanations (Rule 70.7):

**see separate sheet**

**Re Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The comments relating to the formulation of claim 6 which relate to the use of the feed supplement are maintained. Since no unified criteria exist in the PCT Contracting States it is impossible to give a correct opinion regarding the industrial applicability of these claims. Patentability can be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1 Reference is made to the following documents:

D1 : US 2002/150653 A1 (BAILEY STEVEN W ET AL) 17 October 2002 (2002-10-17)

2. The present application meets the criteria of Article 33(1) PCT, because the subject-matter of claim 1 appears to be novel and to involve an inventive step in the sense of Article 33 (2) and (3) PCT.

Document D1 discloses food and feed supplements containing vitamins which comprise citric acid, B6, B9, and B12 vitamins (pyridoxine, folate and cyanocobalamin respectively), iron, antioxidants and when dissolved should have a pH of less than around 4 (see D1: paragraphs 36 and 40-48).

The subject-matter of claim 1 differs from the teaching of the document D1 in that there is a selection of ranges of composition with respect to the amount of B vitamins.

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(SEPARATE SHEET)**

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The subject-matter of claim 1 is therefore new.

The effect of this selection is that the positive contribution of carboxylic acid can be maintained during metabolism. This effect is not found in the available prior art, nor is there an indication in said art that the teaching of the document D1 could be modified in such a way as to provide for the composition of claim 1.

The subject-matter of claim 1 is therefore considered to be inventive.

Claims 2-8 are also deemed acceptable by virtue of their dependency on an allowable claim, notwithstanding the comments in Item III above.



***New claims, substitution sheets 16a-17a***

1. Food and feed supplement containing vitamins, for improvement of health and performance, characterized in that the supplement contains at least one C<sub>1-8</sub> carboxylic acid and/or its salt as the basic ingredient and the B<sub>6</sub>, B<sub>9</sub> and B<sub>12</sub> vitamins in amounts of 10-50 mg/gram dry weight of the supplement, and that the amounts of the vitamins B<sub>12</sub> and B<sub>9</sub> at least corresponds to that which can be consumed during the metabolism of the COOH-groups of the carboxylic acid, and 5-25 mg Fe/gram dry weight of the supplement, 0-1 weight% of an antioxidant, and that the amount of salt and carboxylic acids will give a pH of 2.0-6.0 when the supplement is dissolved in water.
2. Supplement according to claim 1, characterized in that the amounts of the vitamins B<sub>6</sub>, B<sub>9</sub> and B<sub>12</sub> are in the range of 0,5-30mg, 0,1-10mg and 1-1500µg/gram dry weight of the content of the pure carboxylic acids in the supplement, respectively.
3. Supplement according to claim 1, characterized in that it contains 0.5-3.5 weight% iron fumarate.
4. Supplement according to claim 1, characterized in that the supplement contains vitamin E as antioxidant.
5. Supplement according to claim 1, characterized in that it contains an desiccant, preferably MgO.

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6. Use of supplement according to claim 1-5, for improving the performance during stress and competition conditions, in amounts of 0.5-15 grams dry supplement/kg dry feed.
7. Use of supplement according to claim 1-5 in the feed for horses by admixing 1-15 grams dry weight of the content of the pure carboxylic acids in the supplement/100kg horse weight in the standard feed for horses.
8. Use of supplement according to claim 1-5 in the food for humans by administration of 0,1-4,4 mg daily intake of the dry weight of the content of the pure carboxylic acids in the supplement per kilogram bodyweight.

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